

SAT Report

PMN Number: **P-09-0205**

SAT Date: **2/18/2009**

Print Date: **11/26/2014**

Related cases:

Health related cases:

Ecotox related cases: No reasonable analogs were found.

Concern levels:

Type of Concern:	<u>Health</u>	<u>Eco</u>	<u>Comments</u>
Level of Concern:	2	3	

<u>Persistence</u>	<u>Bioaccum</u>	<u>Toxicity</u>	<u>Comments</u>
1	1	2	
		Awaiting	
		Human Health	
		Entry	
		Awaiting	
		Human Health	
		Entry	
		Awaiting	
		Human Health	
		Entry	

Exposure Based Review:

Health: Yes

Ecotox: Yes

Routes of exposure:

Health: Dermal and inhalation.

Ecotox: All releases to water

Fate: ;

Keywords:

Keywords:

Summary of Assessment:

Fate:

Fate Summary: P-09-0205

FATE: Estimations for covalent ion pair MW 450

Solid with MP = 257 EC (E)

log Kow = 2.50 (E);

S = Disp./111 mg/L at 25 EC (ICB/E)

VP < 1.0E-6 torr at 25 EC (E)
 BP > 400 EC (E)
 H < 1.00E-8 (E)
 log Koc = 4.49 (E)
 log Fish BCF = 1.85 (E)
 POTW removal (%) = 0-50
 Time for complete ultimate aerobic biodeg = wk-mo
 Sorption to soils/sediments = moderate
 PBT Potential: P1B1
 *CEB FATE: Migration to ground water = moderate

Health:

Health Summary: Absorption is nil through the skin based on physical/chemical properties and poor the GI tract and moderate through the lungs based on analogs. Expect poor hydrolysis of the [REDACTED]. The PMN compound has [REDACTED] properties which raises concern for lung effects if respirable particles or droplets are inhaled and concern for irritation (as both a [REDACTED] and a quaternary). There is uncertain concern for neurotoxicity for the quaternary. To the extent that [REDACTED] is released, there is concern for developmental toxicity and liver effects. Moderate concern.

Ecotox:

Test Organism	Test Type	Test End Point	Predicted	Measured	Comments
fish	96-h	LC50	31		
daphnid	48-h	LC50	4.3		
green algal	96-h	EC50	2.2		
fish	—	chronic value	0.71		
daphnid	—	chronic value	0.048		
algal	—	chronic value	0.77		
Sewage Sludge	3-h	EC50	—		
Sewage Sludge	—	Chronic Value	—		

Ecotox Values Comments:

Factors	Values	Comments
Assessment Factor	10	
Concentration of Concern (ppb)	5	
SARs	[REDACTED]	
SAR Class	[REDACTED]	

Ecotox Category		

Ecotox Factors Comments:

SAT Chair: Becky Jones

Focus Report
New Chemicals Program
PMN Number: P-09-0205

Focus Date: 02/26/2009 12:00:00 AM Report Status: Completed
Consolidated Set:
Focus Chair: Geraldine Hilton Contractor: Barbara Fricks

I. Notice Information

Submitter: [REDACTED] CAS Number: [REDACTED]
Chemical Name: [REDACTED]
Use: [REDACTED]

Other Uses: No other uses were found.

PV-Max: [REDACTED]

Manufacture:

X

Import:

II. SAT Results

(1) Health Rating: 2

Eco Rating: 3

Comments: ;

Occupational: 1B

Non-Occupational: NR

Environmental: NR

(1) PBT: 1 1

2

Comments:

III. OTHER FACTORS

Categories:

Health Chemical Category:

Ecotox Category: [REDACTED]

Related Cases/Regulatory History:

Health related Cases:

Ecotox Related Cases: No reasonable analogs were found.

Regulatory History: NRC

MSDS/Label Information:

MSDS: Yes

Label: No

General Equipment: chemical gauntlets, chemical resistant suit, rubber boots, splash chemical goggles

Respirator: where concentrations in air may exceed exposure limits, the use of air supplied breathing apparatus is recommended; in event of emergency or planned entry into unknown concentrations, a positive pressure full-facepiece SCBA should be used

Health Effects: flammable; toxic by inhalation, in contact with skin and if swallowed; irritating to eyes and skin

TLV/PEL (PMN or raw material): - none established for the PMN product

Exposure Based Information:

Exposure Based Review: Y

Exposure Based Review (Health): Y

Exposure Based Review (Eco): Y

Exposure Based (Occupational): No

Exposure Based Review

Exposure Based (Environmental):

(Non Occupational):

IV. Summary of SAT Assessment

Fate:

Fate Summary:

P-09-0205

FATE: Estimations for [REDACTED]

Solid with MP = 257 EC (E)

log Kow = 2.50 (E);
S = Disp./111 mg/L at 25 EC (ICB/E)
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POTW removal (%) = 0-50
Time for complete ultimate aerobic biodeg = wk-mo
Sorption to soils/sediments = moderate
PBT Potential: P1B1
*CEB FATE: Migration to ground water = moderate

Health:

Health Summary:

Absorption is nil through the skin based on physical/chemical properties and poor the GI tract and moderate through the lungs based on analogs. Expect poor hydrolysis of the ester to release [REDACTED]. The PMN compound has surfactant properties which raises concern for lung effects if respirable particles or droplets are inhaled and concern for irritation [REDACTED]. There is uncertain concern for neurotoxicity for the quaternary. To the extent that [REDACTED] is released, there is concern for developmental toxicity and liver effects. Moderate concern.

Ecotox:

Ecotox Values:

Fish 96-h LC50:	31(P)
Daphnid 48-h LC50:	4.3(P)
Green algal 96-h EC50:	2.2(P)
Fish Chronic Value:	0.71(P)
Daphnid ChV:	0.048(P)
Algal ChV:	0.77(P)

Ecotox values comments: Predictions are based on SARs for [REDACTED]; SAR chemical class = [REDACTED]; log Kow = 2.50 (EPI, [REDACTED]); solid with unknown mp; S = dispersible in water at 20 °C (P); pH7; effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150.0 mg/L as CaCO₃; and TOC <2.0 mg/L;

Ecotox Factors:

Assessment Factor:	10
Concern Concentration:	5

V. Summary of Exposures/Releases

Engineering Summary: P-09-0205

Exposures/Releases	Release	Release	Release
Scenario			
Sites			
Media			
Descriptor A	Conservative	High End	Output 2
Quantity A (kg/site/day)			
Frequency A (day/year)			
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From			
Workers			
Exposure Type			

Engineering Summary: Exposures/Releases	Exposure	Exposure	Exposure
Scenario			
Sites			
Media			
Descriptor A	High End	High End	High End
Quantity A (kg/site/day)			
Frequency A (day/year)			
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From			
Workers			
Exposure Type			

V. Summary of Exposures/Releases

Engineering Summary: P-09-0205

Exposures/Releases	Exposure		
Scenario			
Sites			
Media			
Descriptor A	High End		
Quantity A (kg/site/day)			
Frequency A (day/year)			
Descriptor B			
Quantity B (kg/site/day)			
Frequency B (day/year)			
From			
Workers			
Exposure Type			

VI. Focus Decision and Rationale

Regulatory Actions

Regulatory Decision: PMN Drop

Decision Date: 02/26/2009

Type of Decision:

Rationale:

P09-0205 was dropped from further review. Moderate to low concerns for health were addressed with adequate dermal and respiratory protection. RAD requested an exposure based review for inhalation, but no criteria were met. Potentially high concerns for the environment from esters were mitigated by no releases to water. Exposure based review was requested for ecotoxicity concerns; however, no criteria were met. This was an EAB Drop.

Summary of Exposures and Releases:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

P2 Rec Comments:

Testing:

Final Recommended:

Health:

Eco:

Fate:

Other: